IN THE SPECIFICATION:

Please amend paragraphs 2, 21, 23, 31, 32, 41, and 42 of the specification as follows:

[0002] The present invention relates generally to vehicle occupant sensing systems and, more specifically, to such a system having a ~~circufit~~ circuit carrier tray adapted to properly orient a plurality of sensor assemblies.

[0021] The electric circuit 34 is electrically connected to a controller schematically illustrated at 36. As described in greater detail below, the electric circuit 34 carries electric signals generated by the vehicle occupant sensing system 28 to the controller 36. The controller 36 is electrically attached to a restraint system, schematically illustrated at 38. The restraint system 38 can be of many types, such as an air bag system, and the controller 36 ~~controls~~ sends output to the restraint system 38 based on the signals delivered by the electric circuit 34. Although an airbag restraint system is discussed here, one having ordinary skill in the art will recognize that the type of restraint system 38 connected to the controller 36 does not limit the scope of the present invention.

[0023] A sensor, generally indicated at 42, is operatively fixed relative to each of the low profile sensor assemblies 40. The sensor 42 is in electrical communication with the electric circuit 34. The low profile sensor assemblies 40 each cooperatively operate with the associated sensors 42 to detect a condition of the vehicle seat 10 as will be described in greater detail below. For example, the low profile sensor assemblies 40 and sensors 42 can operate to detect that the vehicle seat 10 is unoccupied, is occupied by a person of a particular weight, or is occupied by a person sitting in a particular position. The sensor 42 and its method of attachment can be one of a type described in applicant's co-pending application entitled "Vehicle Occupant Sensing

System and Method of Electrically Attaching a Sensor to an Electrical Circuit," serial number 10/748,514, which is herein incorporated by reference in its entirety.

[0031] As noted above, the vehicle occupant sensing system 28 further includes at least one sensor 42. The sensor 42 is operatively supported by the circuit carrier 32 adjacent the sensor assembly 40. In the embodiment shown here, the sensor 42 is positioned below the base 46 of the sensor assembly 40. The sensor 42 can be one of many types, including but not limited to a Hall effect sensor. If the sensor 42 is a Hall effect sensor, it detects the change in magnetic flux caused by the movement of the emitter 78 within the upper slide member 48 of the sensor assembly 40, and the sensor 42 generates a signal correlative of this change in magnetic flux. In this way, the sensor 42 is adapted to detect a condition of the vehicle seat assembly 10, such as whether or not it is occupied or whether the occupant is sitting in a certain position, based on the response of the sensor assembly 40. The signals generated by the sensor 42 are carried through the electric circuit 34 to the controller 36, which ~~uses those signals to control~~ sends output to the restraint system 38 based on the signals generated by the sensor 42.

[0032] The weight of an occupant will deform the seat cushion 16 such that the lower surface 20 of the seat cushion 16 pushes the upper slide member 48 toward the base 46. The movement of the upper slide member 48 defines a force responsive axis 80. As the upper slide member 48 moves, the sensor 42 detects an increase in magnetic flux density generated by the approaching emitter 78. In this way, the sensor 42 is operable to detect movement of the upper slide member 48 toward and away from the base 46. In turn, the sensor 42 generates a responsive signal indicative of the increase in flux density, and the controller 36 ~~controls~~ sends output to the restraint system 38 based on these signals. In the preferred embodiment, the sensor assemblies

40 are of the type described in detail in applicant's co-pending patent application serial number 10/748,536, entitled "Vehicle Occupant Sensing System Having a Low Profile Sensor Assembly," and which is incorporated herein in its entirety by reference.

[0041] The tray 30 supports each sensor assembly 40, with the upper slide member 48 in close proximity to the lower surface 20 of the seat cushion 16. As noted above, when an occupant sits on the upper surface 18 of the seat cushion 16, the occupant's weight transfers through the seat cushion 16, causing the lower surface 20 to move toward the upper slide members 48 and depress them into the respective base 46. Movement of the upper slide members 48 causes the respective sensors 42 to generate the correlating signals, which are sent through the electric circuit 34 to the controller 36. The controller 36 ~~controls~~ sends output to the restraint system 38 based on these signals.

[0042] Thus, the vehicle occupant sensing system 28 responds when an occupant is present in the vehicle seat assembly 10 because some or all of the upper slide members 48 are depressed, and a person of a certain weight will depress the upper slide members 48 a predetermined amount, causing a predetermined signal response from the sensors 42. Similarly, when the vehicle seat assembly 10 is vacant, all of the sensor assemblies 40 are at a free height, causing another predetermined signal response from the sensors 42. Also, when the occupant is seated in a certain way, a number of upper slide members 48 are depressed in a certain pattern, causing a predetermined signal response from the sensors 42. In this way, the sensor assemblies 40 are responsive to the condition of the vehicle seat assembly 10, and the controller 36 can ~~control~~ send output to the restraint system 38 based on these predetermined signal responses. However, one having ordinary skill in the art will recognize that the vehicle occupant sensing

system 28 could be responsive to any one of a plurality of vehicle seat conditions without limiting the present invention.